Centre for Sustainable Entrepreneurship in a Circular Economy

Mission, vision and strategy
Education, research and societal impact
Planet Earth is a very small but unique particle in our galaxy. Evolution has developed a wide variety of ecological, social, and economic systems. In recent years, due to human behaviour the balance between these systems has been lost resulting in unprecedented social and environmental crises and disruptive events.

The Centre for Sustainable Entrepreneurship in a Circular Economy believes we can restore the balance of our valuable systems. Sustainable entrepreneurs generate new products and services with new business models that offer solutions for the grand challenges of the modern world economy. Sustainable entrepreneurs transform the linear, fossil-fuel based liberal market economies into circular, green and sustainable societies with well-being for all. Sustainable entrepreneurs save the only planet earth that we have.

The Centre wants to make sustainable entrepreneurship and the transition to a circular economy successful. This mission translates in new teaching programs for students, new research programs for scholars and new solutions for regional, national and international communities.

The Centre provides students, business leaders, scholars, policy-makers and citizens with all knowledge and competencies they need to make sustainable entrepreneurship and the transition to a circular economy successful.

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Chair and Founder-Director
Centre for Sustainable Entrepreneurship in a Circular Economy
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What is the challenge? As the world’s population continues to increase, per capita GDP is projected to result in a doubling of global material consumption. Many countries and regions already face unprecedented social and environmental crises and disruptive events. The United Nations Sustainable Development Goals identify 17 critical grand challenges for the 21st century that urgently need to be solved, including amongst others climate change, access to clean water and sanitation, democratization, access to healthcare, clean energy, and the elimination of poverty. The impact of these crises and disruptive events can no longer be ignored and require fundamental changes to our environmental, economic, and social systems. The current unsustainable “take-make-waste” market economies need to be replaced by circular and sustainable societies that seek to balance social, environmental and economic systems. A circular economy, the interrelated relationships between economic, ecological, and social systems are balanced and preserved. We need to change from economic growth and maximizing profits at all costs to sustainable well-being and balancing the interests of people, planet and profit. The transition from a linear, fossil-fuel based and market economy into a circular, green and sustainable society with well-being for all is the main challenge of the modern world economy.

Why sustainable entrepreneurship in a circular economy? Sustainable entrepreneurs address the grand challenges and are therefore key in the transition towards a circular economy. Sustainable entrepreneurs are different from mainstream entrepreneurs. Mainstream entrepreneurs focus on profit-maximization for a few shareholders at all costs. Sustainable entrepreneurs are sustainable opportunity-oriented individuals that generate new sustainable products, services, and production processes. They create new business models that simultaneously balance and preserve ecological, social and economic goals, resulting in sustainable well-being for current and future generations. Sustainable entrepreneurs offer the creative potential needed to save planet earth and to develop a circular economy. Sustainable entrepreneurship heralds a radically new and innovative paradigm. Sustainable entrepreneurs take social impact instead of profit maximization as the point of departure. Sustainable entrepreneurship fosters sustainable opportunity recognition processes and the start of sustainable enterprises with sustainability-specific values, traits, knowledge, motivation, competencies, and passion. Sustainable entrepreneurship highlights the importance of radical innovations as the game changers that create systemic changes in societies. Sustainable entrepreneurs design and implement new business models with the triple bottom line as the benchmark for how they add value, approach strategy and organization, utilize networking, build alliances and position themselves in the market. Sustainable entrepreneurship replaces the imperative of economic growth by dimensions of well-being beyond profit maximization such as psychological well-being, health, time use, education, cultural diversity, resilience, good governance, and community vitality.

Why a Centre for Sustainable Entrepreneurship in a Circular Economy? The Centre for Sustainable Entrepreneurship in a Circular Economy fosters the successful design, implementation, and management of sustainable entrepreneurship and the transition to a circular economy because: 1. It educates new generations of sustainable entrepreneurs by means of a new academic master of sciences degree program for students; 2. It generates new and state-of-the-art academic knowledge by means of transdisciplinary, interdisciplinary and multidisciplinary research lines directly relevant for social communities; 3. It offers new and ongoing inspiration for regional, national and international communities and stakeholders that want to change their organizations and regions into successful sustainable enterprises and circular economies.

Vision statement of the Centre Our vision is that successful sustainable entrepreneurship will result in a circular, green and sustainable economy with well-being for all that preserves our planet earth for future generations. We aspire to be a world-wide acknowledged source of expertise for the successful development, implementation, and management of sustainable entrepreneurship and the transition to a circular economy.

Values of the Centre Four values guide the Centre’s education, research and society programs. These values are the measure for our thinking and for our actions. They are the essence of what ties the members of the Centre together today and tomorrow. Relevance. All our activities start with business experience and societal challenges in our community with respect to sustainability and circularity. We are inspired to constructively fostering sustainable entrepreneurship and the transition to a circular economy with well-being for all. For our stakeholders, we are focused on providing useful knowledge and insights on sustainability that matter to business, policy-makers and citizens, and to the transition to a circular economy.

Inclusion. We are committed to building enduring relationships with all of our community members. We connect business leaders with students, scholars, policy-makers and citizens in an open environment that appreciates and values differences. We believe that inclusive and trans- and multidisciplinary relationships are best for fostering sustainable entrepreneurship and the transition to a circular economy by learning up to successful create and implement new sustainable and circular products and services across sectors, firms, disciplines, and institutes.

Innovation. We take pride in discovering radical new ways to make sustainable entrepreneurship and the transition to a circular economy for our members and stakeholders successful. We are open to disentangling new and unknown challenges driven by intellectual curiosity and societal relevance. We actively promote a culture of invention by encouraging continuous learning among all of our Centre’s members and stakeholders reflected in ongoing radically new ideas, competencies, concepts, products and services about sustainable entrepreneurship and the circular economy.

Authenticity. We are open, trustworthy, and down-to-earth with all of our Centre’s members and stakeholders. We are transparent in our way of workings, methods, and services. We are convinced of the need for, and added value of, sustainable entrepreneurship and the circular economy and are rigorous and authentic in advocating our mission without compromises.

About the Centre Mission statement of the Centre Our mission is to preserve our planet for future generations through successful sustainable entrepreneurship and the transition to a circular economy with well-being for all. We provide community with (inter)national and regional students, scholars, business leaders, policy-makers and citizens with all knowledge and competencies needed to make sustainable entrepreneurship and the transition to a circular economy successful.

About Strategy The Centre is tailor-made for three key groups of communities: students, academic scholars and our sustainable stakeholders including business leaders, policy-makers and citizens. First, we serve the new generations of students. The new generations of students desire meaningful employment that contributes to saving planet earth. As the new generation of future leaders, students value sustainability and the circular economy as important topics in and of itself. Therefore, the first strategy of the Centre is to continue to develop our top-level and fulltime academic master degree program in sustainable entrepreneurship. Based on research-driven and meaningful sustainable education, our master program fosters vision and competencies relevant for future sustainability careers in start-ups, business, policy-making and international research and consultancy organizations. In so doing, we respond to the call for more academic degree programs for sustainability leadership and the circular economy.

Second, we serve the new generations of academic scholars. The new generations of academic scholars are increasingly pushed and pulled towards in-depth studies of sustainability and the circular economy outside mainstream paradigms and existing faculties. The new generations of academic scholars want to develop and answer new research questions, method and theories jointly with stakeholders in order to have social impact with successful sustainable entrepreneurship and the circular economy. The second strategy of the Centre therefore is to develop and implement meaningful sustainability and circular economy research paradigms. Our research explores and exploits all elements of new business models for sustainable entrepreneurship and the transition to a circular economy in co-creation with our stakeholders.

Third, we serve the new generations of entrepreneurs, business leaders, policy-makers and citizens that want to design and implement evidence-based sustainability toolkits in order to make sustainable entrepreneurship and the transition to a circular economy successful. The third strategy of the Centre therefore is to develop and implement practice-oriented programs that are meaningful and research-driven. These programs offer state-of-the-art knowledge, competencies, and hands-on solutions regarding sustainable entrepreneurship and the circular economy. They are tailored to our stakeholders to change-existing business models or to create new ones and show the implication for policies, behaviour and communities.

Education, research and societal impact
Added value of the Centre

The Centre provides students, academic scholars and stakeholders with all the knowledge and competencies needed to make sustainable entrepreneurship and the transition to a circular economy successful. We will do so by means of novel in-depth research and best practices, and (international) platforms for new thought leadership.

The added value of the Centre for students is a meaningful, academic Master degree in sustainable entrepreneurship. We already successfully served many different editions. The academic master degree program is unique of its kind. Given the acknowledged importance of sustainability and the circular economy in society, the academic master degree program of the Centre qualifies students for future careers in sustainable and circular start-ups, in all business sectors and (semi-) public organizations, and in national and international policy institutes and public organizations.

The added value of the Centre for academic scholars is the design, implementation and management of meaningful and inspiring sustainability and circular economy research lines and paradigms. The Centre offers academic scholars unique opportunities to develop and test radically new sustainability and circular economy research questions, concepts, theories, models and data in co-creation with our stakeholders. Academic scholars benefit from our proven and meaningful interdisciplinary, transdisciplinary and multi-method sustainability and circular economy research paradigms reflected in a large number of publications, stakeholder products, PhD theses and Master student projects.

The added value of the Centre to our stakeholders includes learning how to successfully develop, implement and manage all elements of new business models for sustainable entrepreneurship and the transition to a circular economy. The Centre offers evidence-based toolkits to start, transform or to accelerate sustainable business, policies, behaviour and regional alliances in communities based on state-of-the art research and theories developed in co-creation with stakeholders. The Centre offers thought leadership needed to solve the wicked challenges that align with the transition to a circular economy with well-being for all.

The added value of the Centre for the regional economy is fostering new sustainable start-ups, new sustainable employment, new sustainable eco-systems, and new sustainable resilience needed to make sustainable entrepreneurship and the transition to the circular economy successful. The Centre offers thought leadership and solutions for regional challenges including an ageing population and declining incumbent businesses and innovation. The Centre’s change ambition, knowledge and experience are centre stage of the regional success of sustainable entrepreneurship and circular ecosystems.

The added value of the Centre to the University of Groningen is the Centre’s state-of-the-art innovative expertise for sustainable entrepreneurship and the circular economy. The Centre’s education, research lines and community services foster the University’s international profile and leading position. The Centre actively builds new academic and stakeholder communities dedicated to successful sustainable entrepreneurship and the circular society collaborating with regional, national and international universities and research groups. The Centre is a best practice example for the University showing the social impact of sustainability and circular knowledge and expertise.

The general model of sustainable entrepreneurship in a circular economy

The mission, vision and strategies for teaching, research and societal impact in the Centre are organized with the general model of sustainable entrepreneurship in a circular economy.

Figure 1 shows the three stages for successful sustainable entrepreneurship. In the first stage, the sustainable enterprise is designed. Foundations and core knowledge together with personal leadership result in the strategic decision to start a new sustainable enterprise or to transform an existing one. In stage 2, the consequences of the sustainable strategy are translated in the internal organization, external alliances, the positioning of the sustainable enterprise in the external context and the relationships with public policies.

In stage 3 the outcomes of stages 1 and 2 are materialized in the management of triple bottom line performance of the enterprise. All three stages of sustainable entrepreneurship will co-design the regional/national/international circular economy and contribute to social well-being rather than economic growth.

The research and education of the Centre address each of the topics independently such as the role of personal values in exploration of new sustainable opportunities or in combination such as the joint effects of leadership and strategy on the triple bottom line performance of the enterprise.

Figure 1 The general model of sustainable entrepreneurship in a circular economy. Source: de Jong (2022). The general model of sustainable entrepreneurship in a circular economy. Introduction to G. de Jong, B. Ural, N. Faber, T. Long and E. Faber (eds). The DeGruyter Handbook of Sustainable Entrepreneurship Research.
Our Services for Students

Our academic master degree program
The Centre offers a 1-year full-time Master of Science degree program in Sustainable Entrepreneurship for students. Today, the Centre serves various successful editions with almost all students completing their program on time and with very high satisfaction rates and ratings in national and international evaluation surveys. As a result, the Centre developed a wide range of sustainable entrepreneurship and circular economy projects as well as new communities and alumni. The program is unique in its aim, profile, and organization.

First, the Master program enables students to simultaneously develop leadership, entrepreneurship and academic knowledge and competencies. This unique threefold combination of knowledge and competencies enables students to successfully develop a meaningful final sustainable entrepreneurship project. The program enables students to develop their tailor-made leadership profiles relevant to start a new sustainable enterprise or to join (inter) national corporations, public organizations or policy institutes that require state-of-the-art expertise to solve sustainability and circular economy challenges and transitions.

Second, the content of the program is fully dedicated to all elements relevant for the design, implementation and management of successful sustainable entrepreneurship. It reflects the ambition of the Centre, that is, increasing the number of new sustainable start-ups or the transformation of for-profit firms to sustainable enterprises. Students develop their knowledge and expertise for leadership, strategy, organization, alliances, context, policy, and performance. Together with foundational state-of-the-art insights and novel academic research methods, they are best prepared to successfully complete their final sustainable entrepreneurship project.

Third, the Master program offers students inspiration about the success and failures of sustainability start-ups, transformations in existing business firms and the relevance for public organizations. We believe that learning comes from action in different settings. The program offers a wide range of case studies, stakeholder experiences, best practices and consultancy projects that teach students how sustainability drives leadership, strategy, organization, collaboration, public policy, and societal change.

Teaching philosophy, structure and admission
The master program builds on research-driven education enabling students to learn state-of-the-art theories, research methods and practice. The teaching philosophy is based on vision-based and competency-based learning. Successful sustainable entrepreneurship – in a new sustainable start-up, large multinational corporations, small or medium-sized enterprises, government institutes, network organizations or educational institutes – cannot do without the design and formulation of a personal mission, vision and strategy. We use our tailor-made leadership profile and help students to develop key competencies including leadership, communication, team working, problem solving and self-management.

The master program consists of four blocks. In block one, students learn how to design sustainable enterprises (including foundations, leadership and strategy). In block two, students learn how to implement sustainable entrepreneurship (including organization, alliances and context). In block three, students learn how to manage sustainable entrepreneurship (including policy, performance and methods). In block four, students apply their personal mission in practice within the final sustainable entrepreneurship project.

The courses of the program integrate research-driven education with hands-on business challenges and best-practices of sustainable entrepreneurship and the circular economy. Within each course, students have the opportunity to design and present projects themselves, in couples or in teams.

Students with a bachelor degree from an academic research university in the fields of business, entrepreneurship or economics (or a similar profile) are eligible for entering into the Master degree program. Students that have deficiencies in the admissions benefit from the program-specific support program. This program is tailor-made for students from, for example, Universities of Applied Sciences. It enables students to develop their academic knowledge comparable to a default bachelor program from research universities.

Sustainable start-up academy and student projects
The Centre offers a specific start-up program in the Sustainable Start-up Academy, that gives students in the Master degree program an additional opportunity to design and start their own sustainable start-up with design methods and tools.

The Sustainable Start-up Academy offers various workshops and a final competition event. The first session starts with inspiration from a successful regional sustainable entrepreneur followed by the business idea generation tool that uses idea generation methods. The second session explores the lean start-up method that provides tools for developing a new product or service in uncertain circumstances. Students use the lean start-up tools to develop rapid prototypes and collect feedback for viable products or services. The third session offers a launch game in which the first two years of a sustainable start-up are simulated with consultancy from industry experts. Students learn how to find launching customers and a successful entrance into the market. The fourth session enables students to discover new customers and markets following the lean business modelling training. It enables students to learn how a new sustainable start-up can move from the first customers to having a substantial market share. The fifth session prepares students to pitch their sustainable start-up. In the sixth session, students compete with other students from other programs and institutes for the student start-up award of the year.

In the final project of the master program students offer solutions for a wide range of business challenges that derive from the communities of the Centre such as:

• How can sustainability principles shape the foundations of our company?
• How can all of our financial subsidiaries implement our new sustainable strategies?
• Which actions can our company take to become carbon-neutral?
• Which indicators can our organisation use to measure sustainability performance in all our international locations?
• How can we involve our customers to become more sustainable?
• How can we collaborate with our employees to become more sustainable?

Which leadership styles are needed to accomplish the energy transition mission in our province?

Quality assurance and career opportunities
The Master program is an accredited degree programme and is chaired by a program director. The program implements the quality and performance evaluations of the Dutch Flemish Accreditation Organization (NVAO). A professional Faculty quality organisation ensures the academic degree and organisation of the programme and monitors the alignment with the NVAO accreditation criteria (reflected in financial, student support, marketing, education support and teaching staff professionalism services with the use of program committees and examination and admissions boards).

The alumni of the Master program have a proven track record in a wide variety of careers. Alumni start new sustainable enterprises and develop careers in multinationals, sustainability niche and consultancy companies or policy organisations and government institutes.
Our services for academic scholars

Research meets entrepreneurship and business practice
In the Centre, academic scholars directly collaborate with entrepreneurs and stakeholders to successfully develop, implement, and manage new research for sustainable entrepreneurship and the transition to a circular economy that has societal impact. The transdisciplinary nature of the Centre’s research starts with the end goal in mind and aims to understand how a social, environmental, and value-creating society can be established and how sustainable entrepreneurship can be successful.

Exploring and exploiting new challenges with new answers drives the collaboration with the Centre’s stakeholders and is supported by the Centre’s multidisciplinary research involving entrepreneur-ship, business, psychology, sociology, transition, and circular economy expertise.

The academic scholars design new research methods to collect data in order to answer novel research questions including case studies, peer group discussions, interviews, observations, interventions, advanced database analyses, artificial intelligence and machine learning methods. The research projects of the academic scholars answer research questions such as:

- How can we measure and visualize the sustainability of an organization?
- What are the most important instruments to make organizations more sustainable and to obtain sustainable well-being?
- What are the key principles for changing an existing for-profit business model into a sustainable one?
- How can companies become both, sustainable and financially successful?
- How can managers use multiple and coherent leadership instruments in one business model for successful sustainable entrepreneurship?
- How can companies successfully communicate changes in mission, vision and strategies without losing market shares?

Our senior staff members and research lines
The senior staff members of the Centre develop and supervise a large number of research lines. The research lines serve specific dimensions of sustainable entrepreneurship and the circular economy. The research lines also offer sustainability monitors and consultancy tools for firms, industries, and regions that measure the success of sustainable start-ups and that enable the exploration and exploitation of new challenges and opportunities for sustainability and the circular economy in existing enterprises. These new and relevant insights are translated in a growing number of books, journal papers, conference presentations, working papers, PhD theses, Master student projects, community services and news events.

Professor Gjalt de Jong: sustainable entrepreneurship in a circular economy
Professor de Jong is the Founder, Chair and Head of the Department Sustainable Entrepreneurship in a Circular Economy and Director of the Centre. His societal impact mission/vision/strategy aligns with the observation that the impact of global challenges requires a redesign of production systems and societies towards inclusive circular economies. In a circular economy, the interrelated relationships between economic, ecological, and social virtues are balanced and preserved. Sustainable entrepreneurs are key in the transition towards a circular economy because they generate new products, new services and new business models that contribute to solving the grand societal and transition challenges. Together with his senior staff members, Professor de Jong designs and implements new research lines concerning the design/implementation/management of successful sustainable entrepreneurship and the transition towards a circular economy because (i) it educates a new generation of leadership in the MSc program Sustainable Entrepreneurship, (ii) it generates fundamental and applied academic knowledge by means of transdisciplinary/interdisciplinary multi-method research and sustainability/circular economy research lines, and (iii) it inspires and supports existing/new sustainable firms and circular citizenship by means of masterclasses, policy instruments/ regional monitors and public debates.

The research lines encompass studies concerning (combinations of) the design (leadership and strategy), implementation (organization, alliances, contact and policy), and management (multiple value performance) of sustainable enterprises and their impact on the transition towards a circular economy.

Dr. Tom Long: regenerative entrepreneurship
Dr. Tom Long is the Centre’s assistant professor in regenerative entrepreneurship. His background is in Politics and Economics and Sustainable Development. His research lines focus on the current impact and future potential of regenerative entrepreneurship and responsible innovation – and related themes of inclusivity, managing unattended outcomes and externalities, and the role of socio-ethical factors – to achieve sustainable outcomes. The research lines focus on how sustainable entrepreneurs view, incorporate and manage socio-ethical issues into their entrepreneurial business model innovation processes. The research lines are inter-disciplinary across the fields of management, economics, sociology, psychology and political sciences, and often inductive and conducted as a team effort. The research lines offer important foundations for the regenerative opportunities of sustainable entrepreneurship in fragile nature environments such as the Waddensea region.

Dr. Emma Folmer: social entrepreneurship
Dr. Emma Folmer is the Centre’s assistant professor in social entrepreneurship. Her research aims to understand how entrepreneurs and business can contribute to solving complex social problems. The answer to this question becomes more pressing in a world where existing solutions are not delivering enough impact. Traditionally, governments, charities and NGO’s are hold responsible to solve problems such as poverty, unemployment, climate change and inequalities in education and healthcare. More recently business approaches to solving these social problems have emerged. Her research contributes to understanding what circumstances these social entrepreneurs can emerge, thrive and be the most successful. Because social enterprises are often embedded in local communities, they have a unique understanding of how grand challenges manifest locally. This enables social enterprises to design and implement innovative processes, products or services to create social impact. Her research is organized in three main research lines including comparative social entrepreneurship, collective and community entrepreneurship, and sustainable entrepreneurship education.
Dr. Maaike de Jong: cultural entrepreneurship

Dr. Maaike de Jong is the Centre’s assistant professor in cultural entrepreneurship. She is the coordinator of the Network for Religious Heritage. Dr. de Jong aims at opening up discussions about heritage, museums and tourism, and in new ways through these projects. She also wants to contribute to the Sustainable Development Goals on issues such as ‘sustainable cities and regions’ and ‘multi-stakeholder partnerships’. Dr. de Jong’s research contributes to sustainable development with knowledge about heritage, museums and tourism. She develops and participates in research projects with national and international scholars. Currently, she focuses on three research lines using applied philosophy and critical theory that analyse how communities address heritage and cultural identity challenges. The first line incorporates studies on collection ethics and responsibility collaborating with museums in the context of the restitution of sensitive collections. Dialogue with source communities (including the Museum of the Rockies, Quai Branly Museum, the Treptowerpark and the National Museum). The second considers heritage as a driver of sustainable development and communities (collaborating with the Veenhuisen and Frederikskoorn museums). The third concerns museums as platforms for sustainable cities and communities (collaborating with the Humboldt Forum, the Museum of Boulder and the District Six Museum).

Dr. Josephine Geiger: sustainable entrepreneurship

Dr. Josephine Geiger is a social psychologist and the Centre’s assistant professor in sustainable entrepreneurship. She is interested in learning about the determinants and consequences of behaviour related to sustainable entrepreneurship. She develops different research lines including a visualization of change processes and consumer requirements for sustainable packages. The first research line aims to better understand situations in which employees face (un)sustainable difficulties and challenges and how they solve it with a particular focus on the human factor in there. The visualization of these processes can help to identify challenging situations within companies and to sensitize and train employees and leaders for these. The research offers important foundations for decision-making processes with regard to sustainability. Volkswagen Emden, Bünting Emden and ID Partners Emschwerde are the partners in this research. The second research line aims to understand consumer’s requirements for sustainable packaging. The results indicate that aesthetics and handiness are important factors for consumer to use them. House of Design is the partner in this research line and integrates these insights into the design of these reusable containers. The research offers important foundations to systematically test the effects of different designs on consumers’ waste behaviours.

Dr. Pelin Gül: female entrepreneurship

Dr. Pelin Gül is the Centre’s assistant professor in female entrepreneurship. She is a social and cultural psychologist, committed to research on the psychological foundations of gender relations and inequality. Drawing on perspectives from social and evolutionary psychology, the primary goals of her research are to (1) explain how motivational and cultural processes interact to shape support for traditional gender norms and beliefs, and (2) describe the implications on injustice, violence, and harassment against women at various domains of life, including domestic, health, work and education. This research offers foundations for finding new ways of combating harmful and discriminatory gender practices by offering a more nuanced understanding of the origins of traditional gender norms and why they persist in different societies.

Dr. Niels Faber: circular entrepreneurship

Dr. Niels Faber is the Centre’s assistant professor in circular entrepreneurship. His research lines focus on the organizational aspects of the circular economy in general and on the role of business models that create value in accordance with the principle of value preservation in particular. The research lines include the causes and consequences of sustainable value creation, organizing for a sustainable and circular economy, and sustainable and circular impact. A circular economy is characterized by an economic system with a low impact on natural systems while serving society in fulfilling its material needs. Realizing a circular economy is not just a matter of technological change but requires rethinking organizing our economy around value preservation. The research lines have resulted in a methodology for the design of sustainable and circular business models. Additionally, the research has resulted in a classification of circular business models that currently are applied. The research offers important foundations for the design, implementation and management of new circular business models in North Netherlands, in the transition of agricultural business models and in the construction industry.

Dr. Hans van Polen: methods and sustainable entrepreneurship projects

Hans van Polen is the Centre’s expert on research methods relevant for sustainable entrepreneurship projects. The students in the master program have the opportunity to develop their own final project enabling to test their new competencies in practice. The master program offers a particular support system to make these student projects successful. In part, the final projects benefit from the courses in research methods during which students learn how to develop a research question that is relevant for the business partner in question and for the academic degree competencies. Together with the embeddedness in existing literature and the justification of their research methods, this is the first part of their final project. Subsequently, students collect information and work together with our stakeholders in developing answers to their questions and the implications for sustainable entrepreneurship.
The PhD thesis consists of a theoretical framework and a research approach that is tested with three projects of multiple in-depth comparative case studies each. The PhD research has been carried out with the assumption that the current and dominant organizing principles based on hierarchies in business and society are inadequate or even counter-effective in achieving a more sustainable economy. The PhD thesis introduces a five-layered model based on systems thinking that offers guidance to identify and analyse the organizing principles needed for sustainable systems change.

The PhD thesis shows how the theoretical model works in practice, with an emphasis on the ecosystem level and how this level connects to the micro-level mission-driven entrepreneurs and to the macro-level of sustainable systems change. New skills and knowledge are needed in order to effectively apply organizational principles, from close collaboration and networking to working in ecosystems.

Building on the foundations of an in-depth literature review of the literature, the PhD research offers four empirical projects to explain how organisations can become sustainable. The first project focuses on sustainable business model innovation in the context of a non-profit hybrid organization that combines the logic of a highly regulated and hierarchical public bureaucracy with the DNA of a social enterprise. The research adopts an inductive theory building approach based on longitudinal and in-depth case analyses of a 100-year-old social housing association. The second project analyses how organizations successfully pursue a sustainability-oriented mission characterized by a dual goal (such as the need for financial viability versus the solving of social and environmental problems). The project investigates the relationship between (dual) organizational identity and individual heuristics in the process of strategy change undertaken by the management team of a Dutch housing association.

The third project analyses how social purpose organizations can successfully serve multiple sustainable development goals simultaneously. Via action research in the setting of a Dutch housing association, the study analyses the process of strategy change while also observing the societal response to this strategy change. The fourth project studies whether and how innovation contests open to the public can be successfully used by businesses as an instrument for open innovation. Using participant observations, the project analyses the design, development, and final outcomes of a sustainable innovation challenge in practice.
The PhD research investigates how incumbent enterprises can assist in achieving societal sustainability. Societal sustainability addresses how society can reach social, environmental and economic goals such as ending poverty and combating climate change. Enterprises are central actors for achieving societal sustainability and can fulfil this role by engaging in corporate sustainability. Enterprises need new capabilities in order to successfully integrate the principles of corporate sustainability and the circular economy at a strategic level. In four empirical chapters, the PhD research develops and applies diverse levels of analyses, thematic focus points, contexts, theoretical foundations and methodologies. Stakeholder collaborations are often complex and involve multiple dimensions, such as internal and external collaborations and individual and collective strategies. The adoption of multiple theoretical and methodological lenses is therefore crucial for understanding stakeholder collaborations.

The first two projects investigate to what extent stakeholder interactions and collaborations can assist enterprises in integrating the principles of corporate sustainability and the circular economy in their strategies and achieving economic, social and environmental objectives. In the setting of small and medium-sized enterprises, these projects investigate how stakeholder interactions and collaborations can assist the individual enterprise in integrating the principles of corporate sustainability and the circular economy. The second two projects investigate how enterprises can successfully interact and collaborate with local communities in circular economy projects. In the second empirical project, the relation between altruistic and biospheric values on the one hand and lifestyle, legitimation and competitive motives to act sustainably on the other hand. The third empirical project studies the relationship between values and the implementation of sustainability measures by managers in the hotel and tourism industry.

Femke Vrenegoer: sustainable entrepreneurship in the hospitality industry
Femke Vrenegoer develops her PhD research concerning “sustainable entrepreneurship in the hotel industry” at the Centre (supervised by professor Gjalt de Jong and professor Elena Cavagnani). The PhD research develops in three different empirical projects.

The first project develops an in-depth understanding of the motives of micro and small-sized hotel accommodation owners and managers to enter into this business and their sustainability measures. The first project highlights the roles of self-enhancement and self-transcendent motives for both of these strategic decisions. The first project indicates an important moderating role for personal values. Values are used to explain whether or not patterns in behaviour can be identified. In doing so, the project enters into the hotel and tourism industry, which is a relatively unknown area of sustainability research. The research context is important because it is confronted with an increasing sustainability demand. The project disentangles whether or not values are important for individuals to start a career in this industry, for the motives to behave sustainably and for the implementation of sustainability measures. It uses exploratory and semi-structured interviews with owner-managers of micro and small-sized hotel accommodations to explore the multi-faceted roles of these concepts.

The first project offers the foundations for two large-scale empirical projects. In the second empirical project, the relation between pro-environmental values and the motivation to act sustainably is analysed. The second project identifies significant relationships between altruistic and biospheric values on the one hand and lifestyle, legitimation and competitive motives to act sustainably on the other hand. The third empirical project studies the relationships between values and the implementation of sustainability measures by managers in the hotel and tourism industry.
In the first project, the relationships between transformational leadership with environmental concerns on the one hand and environmental green behaviour of employees on the other hand are examined. For this first research project, Turkish high-tech organizations are examined. In the second and third projects, the mechanisms that explain the influence of environmental transformational leadership on environmental behaviour of employees in Dutch organization is analysed taking into account group norms and individual values of employees. In the fourth project, machine-learning methods are used to understand whether and how contextual factors can change relationships between environmental values of employees, leadership behaviour and group norms or group dynamics.

Jens Kaus: sustainable entrepreneurship ecosystems
Jens Kaus develops his PhD research concerning "The evolution of sustainable entrepreneurship ecosystems" at the Centre (supervised by professor Gjalt de Jong and Dr. Niels Faber). The successful transition towards a more sustainable society will require disruptive innovations that aim to balance social, environmental, and economic objectives. Sustainable entrepreneurs are a type of actor that can succeed in developing radically new ways of organizing value to address today’s most pressing challenges and contribute towards sustainable development. However, entrepreneurship cannot be viewed isolated from the context – or entrepreneurial ecosystem – in which it operates. While knowledge is rapidly growing on entrepreneurial ecosystems, its focus is on high-growth start-ups. This PhD research investigates the dynamics of sustainable entrepreneurial ecosystems. The sustainable entrepreneur is at the core of these ecosystems and their main purpose is to foster the emergence and development of sustainable ventures. This PhD research identifies the emergency and development processes of such ecosystems and their governing dynamics.

Eric Fath-Kolmes: dynamic capabilities for flourishing sustainable enterprises
Eric Fath-Kolmes develops his PhD research concerning "Dynamic capabilities for flourishing sustainable enterprises in the construction industry" at the Centre (supervised by professor Gjalt de Jong and Dr. Tom Long). Many organizations are underperforming in their transformation towards sustainability, as their focus is still towards economic gains. This PhD research highlights the crucial importance of new and dynamic capabilities for sustainability to improve the triple-bottom line performance. A systematic literature review based on bibliometric research methods offers the points of departure for this PhD research. These foundations offer guidance for two empirical projects in the setting of the construction industry. The construction industry offers a relevant research context given that it is underperforming in their transformation towards sustainability.

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To be determined: innovative business models in agriculture
The development of innovative business models in agriculture in the Northern part of the Netherlands is the newest PhD research project (supervised by professor Gjalt de Jong and Dr. Niels Faber). This PhD research learns how to design, implement and sustain new business models in agriculture in the Northern part of the Netherlands. Agriculture has a long history in this region. Agriculture is historically used circular and nature-driven business models but has evolved into linear and industrialized business models of efficiency and maximizing profits for farmers. The financial forecasts of farmers is challenging and the social appreciation of current business models has declined. The efficiency farming business models is at the end stage of its life cycle among others because of the large-scale negative ecological effects. As a result, niche farmers in the region innovate and develop new business models based on the opportunities and limitations of nature. These new business models have systemic implications for value chain partners, government policies and consumer behaviour. The new business models directly contribute to the triple bottom-line performance of farmers and their context. The PhD research enables farmers to identify farm-specific quick wins and systemic new ecological and social added value (including water quality, nitrogen and biodiversity). The farmers will learn how to capture these new added value propositions derived from their stand-alone farms or in collaboration with regional co-stakeholders and colleagues farmers. The PhD research will analyse the success factors of the design, implementation, management and regional dissemination of new farming business models.
Our societal impact

Inspiration and collaboration
Sustainable entrepreneurs are of crucial importance for the transition of the current linear fossil-based economy towards a circular and green society. Entrepreneurs and policy-makers have a growing interest in learning how to make these transitions successful. The Centre offers ongoing inspiration for our stakeholders that enable business managers to learn about best practices of sustainable entrepreneurship and to identify opportunities for new or revised business models.

The general model of our Centre offers guidelines for the design, implementation and management of sustainable entrepreneurship aimed at fostering the circular economy and social well-being. This transition or new start-up requires knowledge and competencies, and can be learned by managers and policy-makers ranging from leadership to strategy, successful teams, business model innovations and new sustainable business functions such as marketing, logistics and human resource management.

We use the content and structure of our academic master degree program adapted to our stakeholder profiles for master classes and guest lectures. Together with our ongoing state-of-the-art research, we offer inspiration and competencies for the advantages and disadvantages of sustainable strategies as well as for the process of personal leadership, the opportunities for sustainable ecosystems, the obstacles and solutions for new sustainable business models as well as innovations, the necessity of public policies for regional transitions to a circular economy, the importance and management of new value chains and more.

Collaboration is our key way of working in the Centre. We developed a large network of stakeholders with whom we jointly address an ever-increasing number of questions and challenges on sustainable entrepreneurship and development.

- What are the current sustainability activities and impacts within the enterprise?
- Which sustainable enterprises offer best practices and what can be learned and implemented in the enterprise?
- What is the sustainability potential of firms?
- Which policy instruments are effective for sustainability and the circular economy and which not?
- What accelerators are needed to foster successful sustainable entrepreneurship in a region?
- How can the enterprise re-design and implement new business models of sustainable entrepreneurship while existing business models are still operating?
- What are the conditions for successful management of sustainable business models?

The societal impact of our Centre and the results of our research and education include:

- New business models: innovative and relevant product and services that have been designed based on state-of-the-art business and academic insights;
- Best practices: analysing and sharing patterns of sustainability in existing business models;
- Evidence-based tools: instruments that connect to sustainable entrepreneurship including methods for organisational readiness for sustainability and the circular economy at all levels of the enterprise;
- Inspiration and education: sharing state-of-the-art insights, knowledge and competencies of successful sustainable entrepreneurship and the circular economy;
- Collaboration and networks: ongoing opportunities for entrepreneurs and policy-makers to collaborate with our senior staff members and PhDs.

Regional partners and stakeholders
The Centre has made important and valuable contributions to the strategic goals and the regional knowledge infrastructure of Fryslân. This is the conclusion of the study on the regional impact of the Centre, conducted by Bureau Beleidsbondszoom and commissioned by the Province of Fryslân and the Municipality of Leeuwarden. The report offers an overview of regional stakeholders including the Municipalities of Leeuwarden, Ameland, Southwest-Fryslân, St. Maartensland, Waadhoeke, the Province of Fryslân, Ethiopian housing association, the Dutch Centre for Intangible Cultural Heritage, Strong Frisian Entrepreneurship (SFO) Fryslân Innovation Pact, Inqubator, Board of Commitment partners, Circular Plastics (NHL Stenden University of Applied Sciences), Van Hall Larenstein University of Applied Sciences, Flevoland College, Wadden Sea World Heritage Site, Wadden Academy, Global Centre on Adaptation, House of Design, Diagonal Goods Management Foundation, Sense of Place, Holwerd aan Zee, Haverveld Neighbourhood Association Leeuwarden, Veenhuizen Museum and the Frederiksdoord Museum, De Pleats Burgum, Omrin, Eelkien, EcoStyle, ING Leeuwarden, Rabobank, Caparis, Dyozion and Vanhulley.

The Centre is one of the founding members of the Fryslân Association for the Circular Economy (Varierende Circulaire Fryslân), which is a network organisation with 100+ members. Their shared ambition is to accelerate the transition to a circular economy.

Academic outreach and impact
The Centre values all forms of impact it has on society. Through consultations with our partners, we enabled a wide array of social and academic impact. We create our projects around the intention to find joint solutions for real world, sustainability-related business challenges. This has resulted in many academic works, including PhD theses, contributions to international conferences, consultancy reports, working papers, student projects, news events, journal articles, and (chapters in) books. Equally important are the intangible outcomes of our efforts, including the satisfaction, inspiration, teaching contents, networking, development of new competencies and skills that (in)directly follow from our research process and design.

New business models conferences, toolkit and online education
The Centre is involved in the wider discourse on new and sustainable business models, and how these contribute to the transition towards a circular economy and sustainable society. First, Dr. Niels Faber is member of the permanent board of the annual New Business Models Conference (NBM Conference). This series of conferences provides a platform for scholars and practitioners to discuss and share insights on business models that aim to shape a sustainable society. Over the years, the conference has attracted participants from all over the world, building a strong community of more than 700 people.

Second, the Centre is dedicated to the development of a consistent body of knowledge around sustainable business models. Doing so, we answer to the imminent need for organizations to adopt sustainability in their core business is imminent. If the latest IPCC report has not yet convinced about the dangerous effects of climate change, the heat waves and floods of past summer surely must have. The central role of citizens is irrefutably established. The time is now to make the necessary changes. The question is who and how? In the book ‘Organizing for Sustainability’, an organizational approach is chosen. Dr. Niels Faber and professor Jan Jonker present the Business Model Template, a comprehensive approach for modelling sustainable, social, and circular business models. The Business Model Template is the result of many years of research, and has been extensively tested in practice. The book is offered as an open access publication at the publisher’s website.

Third, the centre is committed to making research insights available to practitioners and students. In a project for the past year, it has contributed to the realisation of a Massive Open Online Course (MOOC) around the book ‘Organizing for Sustainability’. In 7 chapters and 54 units, MOOC participants develop or change their own business model guided by the Business Model Template. Next to instruction videos, the MOOC offers a rich variety of assignments, multiple choice questions and additional learning material. The MOOC may be used as a standalone course, or be incorporated in or used as support to existing curricula and courses. Similar to the book, the MOOC is available as an Open Access course.

Entrepreneurship and sustainability teaching
The Centre actively engages with other universities and organisations in the development of entrepreneurship and sustainability teaching programs. Dr. Emma Folmer and Dr. Tom Long were awarded an Erasmus+ Strategic Partnership grant for their project to move entrepreneurship and sustainability teaching forward. In light of the sustainable development goals set in Agenda 2030 of the UN, there is a high need and demand to integrate sustainability into entrepreneurship education, as entrepreneurial firms are an essential part of achieving these goals. Sustainability principles are currently often provided as an ‘add-on’ aspect to entrepreneurship education and teaching, not truly integrating the two concepts, as is the case in our Centre. The objective of this project is to address this gap by developing a teaching module integrating entrepreneurship and sustainability education using the Centre as a best practice example.

In a similar vein, professor Gijalt de Jong is involved in regional programs to foster the number of sustainable startups and to redesign general entrepreneurship in vocational and universities of applied sciences towards sustainable entrepreneurship.

University of the North: nature inclusive agriculture
Professor Gijalt de Jong is the director of the new program for nature inclusive agriculture in the context of the University of the North. The University of the North is the collaboration between the different Universities and the UMOIC in the North of the Netherlands. The University of the North specializes in driving transitions of change. The University of the North considers the transition from economic growth to social well-being as the amplifier for new research, education and innovation and the energy transition, circular economy, health and digitalization.

Agriculture is a crucial sector in this transition. Changing from mainstream to nature inclusive agriculture will result in a healthier system of food production and positive effects on biodiversity and climate. Professor de Jong designs the mission, vision and strategy of the nature inclusive transition agenda for the University of the North.

Professor de Jong also participates in and contributes to new agricultural innovation projects such as the ‘caring for soil is caring for life’ and the carbon neutral farming programs.

Professor de Jong and Dr. Niels Faber participate in the Can-Do!-neut program and the consortium with Wageningen University and Research agricultural partners. The consortium develops and tests innovative action perspectives for agricultural innovations that contribute to the realization of the future scenarios. The program includes regional ‘small wins’ perspectives, which are small-scale yet radical initiatives in the food system towards circular agriculture systems. These small wins potentially are the foundations for social transitions.
University of the North: national regenerative farming program

Professor Gjalt de Jong and Dr. Niels Faber participate in the design of the new national program for Regenerative Farming. The focus of the program is on transitioning towards next generation of farming systems in the Netherlands. This includes a systemic upscaling of existing and new regenerative agricultural solutions towards a 100% coverage, meaning the entire Dutch agricultural system is regenerative and has a positive impact on nature and climate by 2040.

With this program, the added value of land-based agriculture in 2040 has significantly increased in comparison with 2021 including new and future-proof revenue models for farmers. The program aims to contribute to substantial savings in current environmental costs incurred through unsustainable agricultural practices. It also will foster the societal support for the new regenerative agricultural sector in the Netherlands.

The program is designed by leading scholars from the University of the North, Wageningen University and Research and the University of Utrecht in collaboration with agricultural innovators and partners from the entire agriculture value chain. The program will develop new pilots for regenerative farming in Friesland and de Achterhoek with a national network and coverage of at least 1000 farmers. The program builds on four scientific research lines including the design of regenerative agricultural and natural systems at enterprise and landscape level, methods, and technology for monitoring of ecosystem services delivered, economic and business models in a regenerative agricultural system, and the development of new human capital.


